

Evaluation Tool for Basal Instructional Materials  
Science (Grades K-12)

<b>Provided by the Publisher</b>	Basal ISBN		Publisher		<b>Provided by the Publisher</b>	
	<b>Title</b>					
	Type -	Electronic   or   Print	Author -			
	Copyright -	Edition -		Readability -		
	Course -	Grade(s) -				
	Teacher Edition ISBN if applicable					

<b>Overall Recommendation</b> (based on specifics from pages 2 and following)	<b>Recommended?</b>  <b>Yes</b> ____
<b>Overall Strengths, Weaknesses, Comments:</b>	<b>No</b> ____

District	
School	
Principal (or other Chair of SBDM)	
Evaluating SBDM Members/Committee Members	

SBDM Principal/Chair Signature

Date

**CRITERIA** This basal resource encompasses . . .

<b>A. Kentucky Core Academic Standards &amp; Grade Level Expectations</b>	<b>Strong Evidence</b>
	<b>Moderate Evidence</b>
	<b>Little or No Evidence</b>
	<b>NA</b>

☐ Text is designed to be used in an elective course outside the KY Core Academic Standards

Evaluators are encouraged to refer to the Appendices of the Next Generation Science Standards (NGSS) and the Framework for K-12 Sciences for more specific guidance for expected depth at each grade band/level.

Appendices: <http://www.nextgenscience.org/next-generation-science-standards>

The Framework for Science: [http://www.nap.edu/catalog.php?record\\_id=13165](http://www.nap.edu/catalog.php?record_id=13165)

**Note:** Only complete the parts in **Section A** that apply  
to the grade level(s) under review.

**Complete Sections B - F for all grade levels.**

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**Kindergarten**

**I. Disciplinary Core Ideas**

*Physical Science: Forces and Interactions: Pushes and Pulls*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Interdependent Relationships and Ecosystems: Animals, plants, and environment*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Weather and Climate*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

**1<sup>st</sup> Grade**

**I. Disciplinary Core Ideas**

*Physical Science: Waves: Light and Sound*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Structure and Function*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Space Systems: Patterns and Cycles*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

**2nd Grade**

**I. Disciplinary Core Ideas**

*Physical Science: Structure and Properties of Matter*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Interdependent Relationships in Ecosystems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Earth's Systems: Processes that Shape the Earth*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

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### 3rd Grade

#### I. Disciplinary Core Ideas

*Physical Science: Forces and Interactions*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Interdependent Relationships in Ecosystems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Inheritance and Variation of Traits: Life Cycles and Traits*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Weather and Climate*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

### 4th Grade

#### I. Disciplinary Core Ideas

*Physical Science: Energy*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Physical Science: Waves: Waves and Information*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Structure and Function*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Earth's Systems: Processes that Shape the Earth*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

### 5th Grade

#### I. Disciplinary Core Ideas

*Physical Science: Structure and Properties of Matter*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Matter and Energy in Organisms and Ecosystems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Earth's Systems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Space Systems: Stars and the Solar System*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

## Grades 6-8

### I. Disciplinary Core Ideas

#### *Physical Science: Structure and Properties of Matter (Grade 6)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Physical Science: Chemical Reactions (Grade 7)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Physical Science: Forces and Interactions (Grades 6 and 7)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Physical Science: Energy (Grades 7 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Physical Science: Waves and Electromagnetic Radiation (Grade 7)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Life Science: Structure and Function (Grades 7 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Life Science: Matter and Energy in Organisms and Ecosystems (Grades 6, 7, and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Life Science: Interdependent Relationships in Ecosystems (Grades 6 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Life Science: Natural Selection and Adaptations (Grade 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Life Science: Growth, Development, and Reproduction of Organisms (Grades 7 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Earth and Space Science: Space Systems (Grade 6)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Earth and Space Science: History of Earth (Grades 6 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Earth and Space Science: Earth's Systems (Grades 6 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Earth and Space Science: Weather and Climate (Grades 6 and 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Earth and Space Science: Human Impacts (Grade 8)*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Engineering Design: Defining and Delimiting Engineering Problems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Engineering Design: Developing Possible Solutions*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

#### *Engineering Design: Optimizing the Design Solution*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

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**Grades 9-12**

**I. Disciplinary Core Ideas**

*Physical Science: Structure and Properties of Matter*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Physical Science: Chemical Reactions*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Physical Science: Forces and Interactions*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Physical Science: Energy*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Physical Science: Waves and Electromagnetic Radiation*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Structure and Function*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Inheritance and Variation of Traits*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Matter and Energy in Organisms and Ecosystems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Interdependent Relationships in Ecosystems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Life Science: Natural Selection and Evolution*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Space Systems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: History of Earth*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Earth's Systems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Weather and Climate*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Earth and Space Science: Human Impacts*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design: Defining and Delimiting Engineering Problems*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design: Developing Possible Solutions*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

*Engineering Design: Optimizing the Design Solution*

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No evidence

## II. Scope and depth consistent with grade band/level Science and Engineering Practices

### A. Asking questions (for Science) and defining problems (for engineering)

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### B. Developing and using models

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### C. Planning and carrying out investigations

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### D. Analyzing and interpreting data

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### E. Using Mathematics and computational thinking

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### F. Constructing explanations (for science) and designing solutions (for engineering)

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### G. Engaging in argument from evidence

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### H. Obtaining, evaluating, and communicating information

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

## III. Scope and depth consistent with grade band/level Crosscutting Concepts

### A. Patterns

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### B. Cause and effect

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### C. Scale, proportion, and quantity

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### D. Systems and system models

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### E. Energy and matter: Flows, cycles, and conservation

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### F. Structure and function

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### G. Stability and change

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

## IV. Scope and depth consistent with grade band/level Connections to Engineering, Technology and Applications of Science

### A. Interdependence of Science, Engineering and Technology

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

### B. Influence of Engineering, Technology and Science on Society and the Natural World

☐ Strong Evidence    ☐ Moderate Evidence    ☐ Little Evidence    ☐ No Evidence

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**V. Scope and depth consistent with grade band/level Nature of science**

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*C. Scientific investigations use a variety of models*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*D. Scientific knowledge is based on empirical evidence*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*E. Scientific knowledge is open to revision in light of new evidence*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*F. Science models, laws, mechanics, and theories explain natural phenomena*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*G. Science is a way of knowing*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*H. Scientific knowledge assumes an order and consistency in natural systems*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*I. Science is a human endeavor*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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*J. Science addresses questions about the natural and material world*

☐ Strong Evidence

☐ Moderate Evidence

☐ Little Evidence

☐ No Evidence

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**VI. Strengths, Weaknesses, Comments:**



**B. Equity and Accessibility**

Materials are free from bias in their portrayal of ethnic groups, gender, age, disabilities, cultures, religion, etc. and contain accommodations for multiple learning styles, students with exceptionalities, English Language Learners and cultural differences.

**Strong Evidence**

**Moderate Evidence**

**Little or No Evidence**

**NA**

**I. Key Criteria for Suitability**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.
- B. Multicultural representation.

**II. Key Criteria for Content quality**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Free from factual errors.
- B. Content is presented conceptually when possible—more than a mere collection of facts.
- C. Content included accurately represents the knowledge base of the discipline.
- D. Content includes integration of academics.

**III. Key Criteria for Connections to Technology**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Integrates technology and reflects the impact of technological advances.
- B. Uses technology in the collection and/or manipulation of authentic data.
- C. Embeds web links as a resource.

**IV. Key Criteria for Support for Diverse Learners**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Provides support for English Language Learners (ELLs).
- B. Provides support for differentiation of instruction for diverse learners.
- C. Challenge for gifted and talented students.
- D. Support for students with learning difficulties.

*Note: may apply to either student or teacher editions*

**V. Strengths, Weaknesses, Comments:**

**Strong Evidence**

**C. Organization and Presentation**

Information is organized logically and presented clearly using multiple methods and mode for delivering instruction that motivate and increase literacy as students engage in high interest, authentic activities.

**Moderate Evidence**

**Little or No Evidence**

**NA**

**I. Key Criteria for Inquiry, Research and Application of Learning**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, evaluating information, analyzing and synthesizing data, communicating findings and conclusions and formulating authentic questions to deepen and extend reasoning.
- B. Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.).
- C. Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- D. Provides opportunities for application of learned concepts.
- E. Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- F. Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

*Note: may apply to either teacher or student edition*

**II. Key Criteria for Technical Skill Development**

Strong Evidence

Moderate Evidence

Little or No Evidence

NA

- A. Provides opportunities for real world application of program specific content.
- B. Provides opportunities for project based learning.
- C. Provides opportunities for performance based activities.
- D. Provides opportunities for critical thinking and reasoning.
- E. Provides opportunities to justify/prove responses.
- F. Provides opportunities for in-depth questioning.
- G. Contains embedded activities (or extensions) that emphasize use of technology for problem solving.

*Note: may apply to either teacher or student edition*

	Strong Evidence	Moderate Evidence	Little or No Evidence	NA
<b>III. Key Criteria for Connections to Literacy</b>				

- A.** Employs a variety of reading levels and is grade/level appropriate.
  - B.** Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
  - C.** Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
  - D.** Student text provides opportunity to integrate reading and writing.
  - E.** Uses vocabulary that is age and content appropriate.
  - F.** Focuses on critical vocabulary vs. extensive lists.
  - G.** Identifies key vocabulary through definitions in both text and glossary.
  - H.** The text is engaging and facilitates learning.
  - I.** Embedded activities enhance the understanding of the text.
- Note: may apply to either student or teacher editions*

	Strong Evidence	Moderate Evidence	Little or No Evidence	NA
<b>IV. Key Criteria for Organizational Quality</b>				

- A.** Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- B.** Presents chapters/lessons in an organized and logical sequence.
- C.** Provides clearly stated objectives for each lesson.
- D.** Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- E.** Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources.
- F.** Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- G.** Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively.
- H.** Uses grade-appropriate type size.
- I.** Included media are durable, easy to use and have technical merit.
- J.** Construction appears to be durable and able to withstand normal use.

#### V. Strengths, Weaknesses, Comments:

<b>D. Instructional Design and Support</b> Instructional design utilizes research-based instructional strategies, offers suggestions for appropriate scaffolding, emphasizes the importance of vocabulary acquisition, provides opportunities to engage in high interest, age-appropriate activities that mirror real-life situations, and make cross-curricular, global connections.	<b>Strong Evidence</b>
	<b>Moderate Evidence</b>
	<b>Little or No Evidence</b>
	<b>NA</b>

Strong Evidence      Moderate Evidence  
Little or No Evidence      NA

**I. Key Criteria for Student Engagement**

- A. Includes content geared to the needs, interests, and abilities of all students.
- B. Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- C. Includes information and activities that assist students in recognizing relevance of concepts (where appropriate) to their own lives and experiences.
- D. Provides a variety of strategies, activities and materials to enhance student learning at the appropriate learning levels.

Strong Evidence      Moderate Evidence  
Little or No Evidence      NA

**II. Essential Components (beyond student and teacher text)**

- Items identified as essential components support the learning goals and concept coverage of the basal.

**III. Strengths, Weaknesses, Comments:**

<b>E. Assessment</b> Materials provide tools for a balanced approach to assessment including both formative and summative assessments in multiple formats not only to guide instruction but also to identify student mastery of content.	<b>Strong Evidence</b>
	<b>Moderate Evidence</b>
	<b>Little or No Evidence</b>
	<b>NA</b>

Strong Evidence      Moderate Evidence  
Little or No Evidence      NA

## I. Key Criteria for Assessment to Inform Instruction

- A. Includes multiple means of assessment as an integral part of instruction.
  - B. Provides evaluation measures in the teacher edition that supports differentiated learning activities.
  - C. Embedded assessments reflect a variety of knowledge levels.
- Note: may apply to either teacher or student edition*

## II. Strengths, Weaknesses, Comments:

<b>F. Available Ancillary/Gratis Materials</b> <i>Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F</i>	<b>Strong Evidence</b>
	<b>Moderate Evidence</b>
	<b>Little or No Evidence</b>
	<b>NA</b>

## I. Ancillary/Gratis Materials

- A. Coordinate teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- B. Are well organized and easy to use.
- C. Provide substantive learning opportunities and are congruent with student learning goals.
- D. Provide opportunities for high-level thinking, assessment, and/or problem solving.
- E. Provide opportunities for intervention.

## II. Strengths, Weaknesses, Comments: